



Iowa Leading Indicators Index September 2013 Report

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The Iowa Leading Indicators Index (ILII) dipped to 106.5 (100=1999) in September 2013. The Iowa non-farm employment coincident index recorded a 0.07 percent rise in September, which extends the streak of employment gains to thirty-six consecutive months.

The ILII's value decreased slightly in September after four consecutive months of increases. During the six-month span through September, the ILII increased 0.9 percent (an annualized rate of 1.7 percent). The six-month diffusion index was 87.5 with only one of the eight components (agricultural futures profits index) experiencing an increase of less than 0.05 percent over the last half a year.

In September, four of eight Iowa Leading Indicators Index components contributed positively. The positive contributors were average weekly manufacturing hours, the new orders index, the national yield spread, and average weekly unemployment claims (inverted). Residential building permits, the agricultural futures profits index, diesel fuel consumption, and the Iowa stock market index contributed to the index negatively.

Figure 1. Iowa Leading Indicators Index and Iowa Non-Farm Employment Coincident Index: January 1999-September 2013

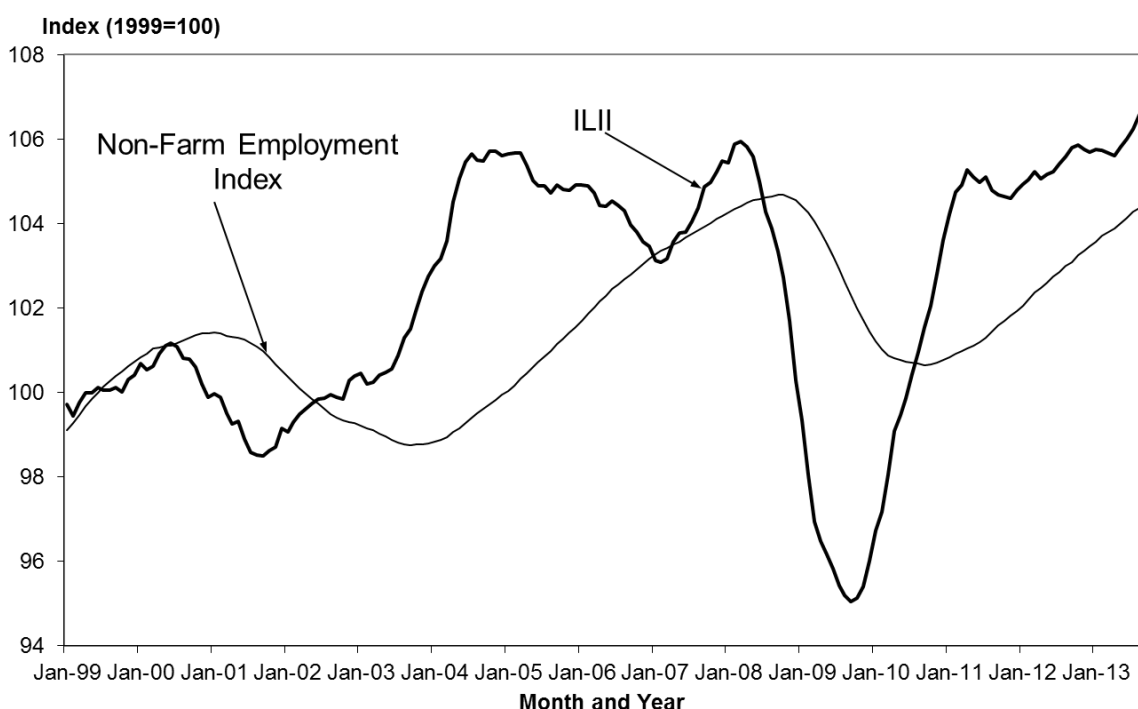


Table 1. Iowa Leading Indicators Index: Six Month Overview

Monthly Values	2013					
	April	May	June	July	August	September
ILII	105.6	105.8	106.0	106.2	106.6	106.5
Percentage Change ^a	0.0%	0.2%	0.2%	0.2%	0.3%	0.0%
Diffusion Index ^b	62.5	62.5	75.0	68.8	87.5	50.0
Six-Month Values	Oct to April	Nov to May	Dec to June	Jan to July	Feb to August	Mar to September
ILII						
Percentage Change	-0.2%	0.1%	0.3%	0.5%	0.8%	0.8%
Annualized Percentage Change	-0.5%	0.1%	0.6%	0.9%	1.6%	1.6%
Diffusion Index	56.3	62.5	75.0	87.5	87.5	87.5

Source: Tax Research and Program Analysis Section, Iowa Department of Revenue, produced December 3, 2013.

a. Percentage changes in the ILII do not always equal changes in the level of the ILII due to rounding.

b. A diffusion index measures the proportion of components that are rising based on the actual changes (not the standardized contributions to the ILII). Components experiencing increases greater than 0.05 percent are assigned a value of 1.0, components that experience changes less than an absolute value of 0.05 percent are assigned a value of 0.5, and components experiencing decreases greater than 0.05 percent are assigned a value of 0.0.

Table 2. Iowa Leading Indicators Index Components: Six Month Overview

Component Series Monthly Values ^a		2013					
		April	May	June	July	August	September
AFPI ^b	↓ ^c						
Corn Profits (cents per bushel)		235.0	228.4	231.9	214.8	190.8	171.0
Soybean Profits (cents per bushel)		450.5	431.9	424.2	394.3	357.7	326.9
Hog Profits (cents per pound)		14.6	14.6	14.5	14.7	15.9	17.9
Cattle Profits (cents per pound)		-14.9	-15.9	-16.6	-17.0	-17.1	-16.4
Iowa Stock Market Index (10=1984-86)	↓	82.64	86.62	86.76	89.93	90.19	90.01
Yield Spread (10-year less 3-month)	↑	1.70	1.89	2.25	2.54	2.70	2.79
Residential Building Permits	↓	840	837	830	855	862	850
Average Weekly Unemployment Claims ^d	↑	3,293	3,297	3,284	3,296	3,281	3,278
Average Weekly Manufacturing Hours	↑	40.65	40.69	40.72	40.79	40.91	41.03
New Orders Index (percent)	↑	65.3	65.7	66.1	66.7	67.7	68.3
Diesel Fuel Consumption (mil gallons)	↓	55.34	55.57	55.73	55.71	56.32	56.06

Source: Tax Research and Program Analysis Section, Iowa Department of Revenue, produced December 3, 2013.

a. For all component series except for the yield spread and the Iowa stock market index, the values represent 12-month backward moving averages.

b. The agricultural futures profits index is computed as the sum of the standardized symmetric percent changes in the four series, each weighted by the commodity's annual share of Iowa cash farm income (updated August 27, 2013).

c. Arrows indicate the direction of the series' contribution to the ILII for the latest month.

d. Changes in average weekly initial unemployment insurance claims are inverted when added to the ILII, thus a negative change in the series contributes positively to the index.

ILII Components

- **Average weekly manufacturing hours:** Weekly average of hours worked in the manufacturing sector in Iowa. Changes are calculated based on a 12-month moving average. For September 2013, this component contributed 0.09 to the ILII value after increasing to 41.03 from 40.91. September 2013 hours were 42.0, well above the 40.5 hours in September 2012, and slightly above the historical average of 41.9 (1996-2008).
- **New orders index:** Diffusion index measuring the share of purchasing managers in Iowa reporting increases in orders received for manufacturing output. Changes are calculated based on a 12-month moving average. The monthly value of the index fell to 66.0 in September from 77.1 in August, but it was up from 59.6 a year ago. The 12-month moving average of the new orders index rose to 68.3, contributing 0.03 to the ILII.
- **Yield spread:** Difference between the yield on 10-year Treasury bonds and 3-month Treasury bills. During September, the yield spread increased to 2.79 percent as the long-term rate rose 7 basis points while the short-term rate fell 2 basis points. For the month, the yield spread contributed 0.03 to the ILII.
- **Average weekly unemployment claims:** Weekly average of initial claims for unemployment insurance in Iowa. Changes are calculated based on a 12-month moving average and are inverted when added to the ILII. This component contributed 0.00 to the ILII value. The 12-month moving average of claims fell to 3,278 with unemployment claims for the month 1.7 percent below September 2012 claims, but 5.4 percent above average historical claims for September (1987-2008).
- **Iowa stock market index:** Capitalization-weighted index of 33 Iowa-based or Iowa-concentrated publicly-traded companies. During September 2013, 18 of the 33 companies gained value, including 8 of the 11 financial-sector companies. The stock market index fell to 90.01, contributing -0.00 to the ILII value.
- **Residential building permits:** Number of total permits issued in Iowa for the construction of residential housing units. Changes are calculated based on a 12-month moving average. For September, this component contributed -0.05 to the ILII with the 12-month moving average decreasing to 850. September 2013 permits were 13.4 percent below September 2012, and 24.7 percent below the historical average for September (1998-2008).
- **Agricultural futures profits index:** Composite measure of corn, soybean, hog, and cattle expected profits, measured as the futures price less estimated breakeven costs, weighted by the respective share of Iowa annual cash receipts. Changes are calculated based on a 12-month moving average. During September, this component contributed -0.08 to the ILII value. Expected profits fell for corn and soybeans with sharp drops in prices; corn prices fell 38.5 percent and soybean prices fell 19.7 percent compared to last year. Expected profits increased moderately for hogs and cattle. Hog prices rose 22.3 percent and cattle prices rose 0.5 percent over last year.
- **Diesel fuel consumption:** Number of taxable gallons of diesel fuel sold in Iowa. Changes are calculated based on a 12-month moving average. Diesel fuel consumption decreased 5.2 percent between September 2012 and 2013, causing the 12-month moving average to fall to 56.06 million gallons from 56.3 in August, and contributing -0.09 to the ILII value.

Table 3. ILII Components and Standardization Factors for FY 2014

Iowa Leading Indicator Index Components	Standardization Factor
Agricultural Futures Profits Index	0.047
Iowa Stock Market Index	0.018
Yield Spread	0.328
Residential Building Permits	0.035
Average Weekly Unemployment Claims	0.033
Average Weekly Manufacturing Hours	0.286
New Orders Index	0.063
Diesel Fuel Consumption	0.189

Source: Tax Research and Program Analysis Section, Iowa Department of Revenue, produced October 30, 2013
The standardization factors are the inverse of the standard deviation of the month-to-month changes in each component over the January 1999 to June 2013 period. These factors equalize the volatility of the contribution from each component and are normalized to one. The month-to-month changes are based on 12-month backward moving averages for all components except the yield spread and the Iowa stock market index. The yield spread and new orders index changes are simple arithmetic changes; month-to-month changes for the rest of the components are computed as symmetric percentage changes. The factors are updated annually during August.

Comments

The Iowa Leading Indicators Index (ILII) is designed to forecast the future direction of economic activity in the state of Iowa. The techniques used to build the ILII follow those used by The Conference Board to construct the national Leading Economics Index (LEI) prior to the 2001 revisions. A one-month movement in such an index does not produce a clear signal, rather it is necessary to consider the direction of the index over several consecutive months. A contraction signal in the ILII is considered reliable when two conditions are met: 1. The index declines by at least two percent over a six month period (using an annualized rate); and, 2. A majority of the individual components decline over those six months (the six-month diffusion index less than 50.0).

The Iowa non-farm employment coincident index measures the change in non-seasonally adjusted, total non-farm employment in the state of Iowa. Changes are based on a 12-month moving average of employment and are computed as symmetric percentage changes. The index is a representation of overall economic activity in Iowa.

The employment index and the ILII are constructed to have a value of 100 in the year 1999.

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